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Pinson, Rosie Barajas; And Others

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#### **ABSTRACT**

During the teacher workshop conducted at the Glen Helen Outdoor Education Center at Yellow Springs, Ohio, oral language techniques, Mexican American culture, and outdoor education were given high priority in training teachers to serve migrant children effectively. Four of the workshop presentations have been adapted for this publication. One of these, a rationale for oral language development, contains 12 pattern drills which can be used by any classroom teacher to help children master basic English language patterns; some of the types of drills presented are repetition drills, substitution drills, transformation drills, conversation drills, and addition drills. Another presentation, entitled Helping Spanish-Speaking Children Who Say "Teach Me the English," offers similar and dissimilar patterns in word order and grammatical structure. The other sections are (1) The Future of the Mexican American--With an Optimistic Eye and (2) Outdoor Education Resources and Activities. Each section contains pictures as well as a narrative discussion of the presentation. (JB)



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# I Do and I Understand

Glen Helen Workshop: April 29-May 1, 1971



**Lithography** 

Photography

**CREDITS Publication**:



MARTIN W. ESSEX Si perintendent of Public Instruction

ROBERT BOWERS Assistant Superingendent, Instruction

> State of Ohio Department of Education 65 South Front Street Columbus, Ohio 43215

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I Do and I Understand (A Rationale for Oral Lang

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I Am Who I Am (The Future of the Mexican

I See, I Touch, and I Try (Outdoor Education Resour

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#### **CREDITS**

Publication: State of Ohio, Department of Education
Martin W. Essex, Superintendent of Public Instruction
Robert Bowers, Assistant Superintendent, Instruction
Division of Federal Assistance
R. A. Horn, Director
James Miller, Special Programs Section Chief

James Miller, Special Programs Section Chief Rachel Dennison, Educational Consultant Enrique González, Educational Consultant Eileen Young, Educational Consultant and Editor

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MARTIN W. ESSEX Superintendent of Public Instruction Ohio Department of Education

## **Foreword**

Teachers of migrant children have the challenge of motivating and creating empathy with youngsters who not only move with the scasons but who find themselves in a strange culture. In addition, these are children who are caught in a new economy that is leaping from hand labor to power driven, automated equipment. The advancing technology requires suitable education if self-respecting citizenship is to be attained in their adult lives.

Mobility and language barriers are two of the pressing challenges. Although migrant children spend only part of their school year in Ohio, that time must be utilized to provide them with a maximum educational experience to serve their unique needs.

Inservice training is one way teachers can learn to understand migrant children, their language problems, and related educational needs. At a workshop conducted April 29 through May 1, 1971, at the Glen Helen Outdoor Education Center in Yellow Springs, oral language techniques, Mexican American culture, and outdoor education were given high priority in effectively serving migrant children.

I would like to acknowledge and extend my appreciation to the seminar participants, to the Glen Helen staff, and especially to Rosie Barajas Pinson, Benito Rodríguez, and J. Douglas Dickinson, whose workshop presentations have been adapted for this publication.

Martin W. Essex Superintendent of Public Instruction



ROSIE BARAJAS PINSON Social Education Site Coordinator Southwest Education Development Laboratory Edinburg, Texas

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The language of the Mexican American during his childhood is predominantly Spanish and his personality and experiences by the time he enters school have been shaped by it. More often than not, a Mexican American child comes to school speaking little or no English. He, therefore, encounters many trauma-filled experiences if he must have academic instruction in a second language. The N.E.A. Tuscon Survey comments on the problem, as follows:

He suddenly finds himself not only with the pressing need to master an alien tongue, but also at the same time, to make immediate use of it in order to function as a pupil. His parents, to whom he has always looked for protection and aid, can be of no help at all to him in his perplexity. Moreover, as a result of cultural and economic differences between the English-speaking and the Spanish-speaking segments of his community, many of the objects, social relationships and cultural attitudes presented to him in lessons, though



## I Do and I Understand

(A Rationale for Oral Language Development)

Rosie Barajas Pinson

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perfectly familiar to an Anglo youngster, lie without the Latin American's home experience. Accordingly, the problem of learning English is, for him, enormously increased by his unfamiliarity with what objects and situations the no less unfamiliar words and phrases stand for.\(^1\)

A child who enters school with little English not only has to learn a new language but many subjects which are supposedly pertinent to his development as a contributing member of the community. This puts him at a serious disadvantage. He often fails to advance in school because activities are conducted in a language he does not understand. Another reason for failure may be inability to comply with the expected rate of achievement set for him by middle-class English-speaking educators.



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The Invisible Minority... Pero No Vencibles, Report of the N.E.A. Tuscon Survey on the Teaching of Spanish to the Spanish-Speaking. Washington, D. C.: National Education Association, Department of Rural Education, 1966.

### Conference





His failure is really no fault of his own. He cannot be expected to succeed without being able to function, to some extent, in English. What can we do to help him? Oral language techniques could be the answer. Through the oral approach we can help him learn English quicker and in a more logically sequential order than if we were to give him a book and expect him to learn from it.

#### **Oral Language Techniques**

The oral approach, which ensures that the learner receives his initial contact with the material through the ear, is a very effective means of learning a language. It builds on the concept that one must first hear and say something before he can read it and write it. The reason for the oral approach is the need for establishing an awareness of the basic patterns of a language before progressing to reading and writing. It requires the learner to learn expressions so thoroughly that he can reproduce them automatically. This does not mean that reading and writing are ignored. Instead, they are used to strengthen control of the language. As stated by Rojas and others:

The oral approach not only permits the use of reading and writing, but employs every other

procedure that helps thorough building up of the new language habits. It distinguishes sharply between learning about a language for use, and, in the early stages of mastery, subordinates all statements about the language that do not clearly aid the practical use of the language in communication.<sup>2</sup>

In other words, the oral approach yields more results in learning a language than "book learning."

#### Pattern Drills

Speaking practice (oral drill) is most instrumental in language learning. Oral drills are considered the essential key to learning a new language because they provide the practice the learner needs in hearing and saying the new language. Remember, a child cannot learn a language by reading about it or by hearing someone else speak it. He must practice speaking the language himself.

Language learning has a lot more in common, in the early stages at least, with learning to play the piano than it does with studying history or mathematics. You can't learn to play the piano by

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Pauline Rojas and others, Fries American English Series: For the Study of English as a Second Language, Teachers' Guide VI. Boston: Heath and Co., 1052



listening to somebody else do it, and you can't learn a language without talking.3

English as any other language cannot be learned through analysis. A child cannot be given a s of rules and be expected to learn English by memorizing them. Much practice is needed since learning a new language means acquiring new habits or ways of using the speech organs and learning the forms and arrangement of the forms required by the system. It means obtaining the new habits through intensive and extensive listening, repeating, and practicing of numerous examples until they become automatic. Moreover, practice is necessary so the learner will be able to produce a pattern and concentrate on the subject of conversation without falling back on past habits or making systematic distortions because of his native language habits.

Pattern drills teach the language through analogy based on forms the learner has already learned through imitation. Pattern practices are not communication. They are solely for the purpose of practice in order that performance may become habitual and automatic.

Intensive Course in English, Teacher's Manual. Washington, D. C.: English Language Services, Inc., 1962, pp 3-4.



## Teachers Do and Understand





The twelve pattern drills which follow can be used to help children master basic English language patterns. Any classroom teacher can readily learn to use these oral language techniques.

1. Repetition Drills. The learners are to listen carefully to the model sentence and repeat it, imitating the teacher's pronunciation and intonation. Repetition should be continued until complete mastery is achieved.

Teacher: I will go to school. Learners: I will go to school. Teacher: I will go to town. Learners: I will go to town.

2. Substitution Drills. Drills involving substitution are of several types including simple substitution, variable position substitution, and double substitution.

For simple substitution drills, present a model sentence and have it repeated by the learners. Then show, by example, how one word can be replaced by another without changing the basic sentence pattern. To continue the drill, provide a cue and have the learners respond by substituting the cue in the basic sentence pattern.

Teacher: I will go to school. To town.

Learners: I will go to town.

Teacher: To play.

Learners: I will go to play.

Simple substitution in variable positions should be the next step. One at a time, the subject may be changed, then the verb, then the object, and then the modifier.

Teacher: Juan should go to school tomor-

row. Maria.

Learners: Maria should go to school tomor-

ow.

Teacher: Will.

Learners: Maria will go to school tomorrow.

Teacher: To town.

Learners: Maria will go to town tomorrow.

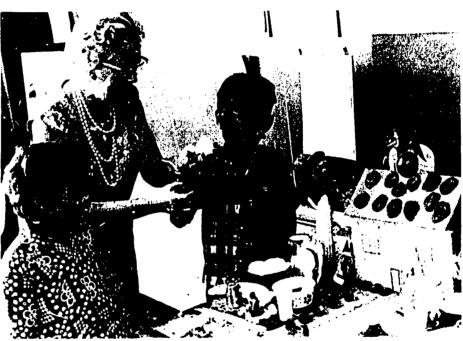
Teacher: Soon.

Learners: Maria will go to town soon.



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Teacher: Juan should go to school tomorrow. Maria.

Learners: Maria should go to school tomor-

Teacher: Will.

Learners: Maria will go to school tomorrow.

Teacher: To town.

Learners: Maria will go to town tomorrow.

Teacher: Soon.

Learners: Maria will go to town soon.

For double substitution drills two cues are given and substituted in the pattern.

Teacher: The wind is cold today.

Sun. Warm.

Learners: The sun is warm today.

Teacher: The meeting was long.

Movie. Short.

Learners: The movie was short.

3. Transformation Drills. For transformation drills, a sentence can be transformed from positive to negative or from a statement to a question. Transformation changes may also be in tense or voice.

Teacher: That is your sweater. Not.

Learners: That is not your sweater.

Teacher: The children are happy. Were.

Learners: The children were happy.

Teacher: That is your book. Question.

Learners: Is that your book?

Teacher: It was a rainy day. Reverse.

Learners: The day was rainy.

4. Conversation Drills. Conversation drills are used with individuals rather than groups. Another difference is that the learner chooses what he wants to say when asked a question. One pupil can question another pupil to create a chain of questions and answers.

Teacher: Jose, did you watch TV last night?

No, I did homework last night.

Eddie, did you do homework last

night?

Jose:

Yes, I did some arithmetic last Eddie:

night. Rosa, did you do homework

last night?

No, we went to the laundry last Rosa:

night. Mary, did you . . . ?

5. Addition Drills. For addition drills the sentence is enlarged as new words are added.

Teacher: The men work. Learners: The men work.

Teacher: Hard.

Learners: The men work hard.

Teacher: In the fields.

Learners: The men work hard in the fields.

Teacher: When tomatoes are ripe.

Learners: The men work hard in the fields when tomatoes are ripe.

6. Backward Build-Up Drills. Backward build-up drills are especially effective in practicing long sentences.

Teacher: To chop beets and pick pickles. Learners: To chop beets and pick pickles.

Teacher: Come to Ohio to chop beets and pick pickles.

Learners: Come to Ohio to chop beets and pick pickles.

Many families from Texas come Teacher: to Ohio to chop beets and pick

Learners: Many families from Texas come to Ohio to chop beets and pick pickles.



7. Integration Drills. For integration drills the teacher models two sentences or utterances. The learners respond with one integrated sentence.

Teacher: The house is little.

They live in the house.

Learners: They live in the little house.

Teacher: The soup is hot.

I ate the soup.

Learners: I ate the hot soup.

8. Completion Drills. For completion drills the teacher provides utterances that are complete except for one word. The learners repeat the utterance in its completed form.

Teacher: My pies are good, but my mother's

are . . . .

Learners: My pies are good, but my mother's

are better.

Teacher: I'll pay for my lunch and you pay

for . . . .

Learners: I'll pay for my lunch and you pay

for yours.

## Teachers Do and Understand

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Teacher: My pies are good, but my mother's are . . . .

Learners: My pies are good, but my mother's are better.

Teacher: I'll pay for my lunch and you pay for . . . .

Learners: I'll pay for my lunch and you pay for yours.

9. Replacement Drills. For replacement drills one utterance is replaced by another.

Teacher: Alma ate a piece of pie. Replace Alma.

Learners: She ate a piece of pie.

Teacher: Manuel gave Joe the football.

Replace Joe.

Learners: Manuel gave him the football.

Teacher: I read the comics on Sunday. Replace comics.

Learners: I read them on Sunday.

Replacement and transformation drills can often be combined. An utterance is made, then one additional word is given which is then placed in the last utterance made.

Teacher: Alma has a new watch.

Replace Alma and substitute doll.

Learners: She has a new doll.

Teacher: Had.

Learners: She had a new doll.

Teacher: Dolls.

Learners: She had new dolls.



### Children Do and Understand



10. Restatement Drills. For this type of drill an individual learner rephrases an utterance and addresses it to someone else, according to instruction.

Teacher: Tell Juan to come here.

Learner: Come here, Juan.

Teacher: Ask Mary how she feels.

Learner: How do you feel, Mary?

Teacher: Ask him how many sides a cube

has.

Learner: How many sides does a cube have?

11. Rejoinder Drills. For these drills individual learners are asked to make appropriate rejoinders to a given statement. Each learner is told in advance how he is to respond.

Teacher: He will become a doctor. Question what is said.

Learner: Are you positive?

Teacher: Disagree with the statement.

Learner: I don't believe it.

Teacher: He will become a doctor.

Disagree emphatically.

Learner: I'm sure he won't.

Teacher: Fail to understand.

Learner: What did you say?

Teacher: Express regret.

Learner: I'm so sorry.

Teacher: He will become a doctor. Agree.

Learner: I think so, too.

Teacher: Agree emphatically.

Learner: I'm sure that's right.

Teacher: Express surprise.

Learner: Really!

Any appropriate answer should be accepted by the teacher. Conduct this and all other drills at a brisk pace to prevent boredom.

12. Restoration Drills. For restoration drills the learner is given basic words to form a sentence.





Teacher:

Learner:

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12. Restoration Drills. For restoration drills the learner is given basic words to form a sentence.

Teacher: Girl, . . . sang, . . . well. Learner: The girl sang well.

Teacher: Boy, . . . caught, . . . calf.
Learner: The boy caught the calf.
Teacher: Bill, . . . Tom, . . . friends.
Learner: Bill and Tom are friends.

#### Classroom Activities

Daily oral language practice sessions of twenty to thirty minutes in duration are seldom enough if language learning is to occur. As oral language is taught, the other classroom activities in which the child is involved throughout the day must not be forgotten. Authorities in language teaching say that language learning requires over-learning—that is, practicing the patterns of the language until the learner no longer thinks of how he is going to say something. Rather, he concentrates on what he wants to say. To help develop patterns the child needs repeated







encounters with the language throughout the day.

Correlating all classroom activities with oral language development can be used to strengthen language development. Teachers very often spend too much time teaching things children already know but cannot express because they lack language facility. Therefore, oral language in the content areas can be very effective, if used properly. For example, if during a lesson in social studies a child has the concept of the word vehicle but cannot verbalize it, the teacher can help him by modeling the correct pattern and following it up with a brief repetition drill.

Teacher: It's a vehicle.
Learner: It's a vehicle.
Teacher: A car is a vehicle.
Learner: A car is a vehicle.
Teacher: A bus is a vehicle.
Learner: A bus is a vehicle.

Such a drill helps the child learn to expressomething for which he has a concept but for which he lacks the English with which express it.

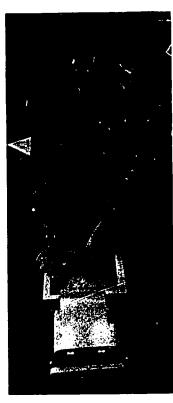
Pattern drills can also be used to develor and reinforce new concepts presented. I firm believe, after learning through experience my own classroom, that a child can lear something faster if he can say it. We cannot expect a child to be able to learn from a body if he cannot read it. Therefore, when this the case, the teacher can select concept clusters from the textbook to formulate sentence patterns which can be used to develop or pattern drills. The teacher can use several the drills described on pages 6 through 8 help teach these concepts.

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Teaching oral language in a variety of content areas provides a higher level of interest than practice only for the sake of language development. The learner can attach words to ideas and things and relate words to feelings and experiences. This approach encourages him to remember and recognize words—a most important step in reaching the ultimate goal, the ability to communicate with ease.

Through success-oriented experiences in language learning, nourishment of a trong personal identity is possible. It is important that the child learn a language in such a way that he feels successful. In that way he will feel he is a worthy, contributing member of a larger society.

To summarize, a Mexican American child might use this ancient Chinese proverb to tell about the way he learns English:

> I hear . . . and I forget. I see . . . and I remember. I do . . . and I understand.

The *I* do is the actual practicing of the language through oral language techniques.





BENITO RODRÍGUEZ Language Consultant Public Schools El Paso, Texas

## "Enseñame e

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(Helping Spanish-Speaking Children Wi

Migrant teachers need to be able to help Spanish-speaking children gain control of the English language – its sounds, rhythm, intonation, and patterns. Knowledge of the following similarities and differences in the two languages (compiled by Benito Rodríguez, language consultant for the El Paso Public Schools, and speaker at the Glen Helen Migrant conference) should prove helpful.

#### Sound Substitutions

The problems Spanish speakers have in the use of English sounds often result from efforts to produce sounds based upon somewhat similar sounds that exist in Spanish. Failure to approximate English sounds interferes with intelligibility and frequently conveys unintended meaning.

What is Said
He is sinking.
I am living.
I watched the baby.
They saw the cot.
I like jello.

What is intended
He is thinking.
I am leaving.
I washed the baby.
They saw the cat.
I like yellow.





## "Enseñame el Inglés"

(Helping Spanish-Speaking Children Who Say "Teach Me the English")

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#### Consonant Sounds

Consonant approximations of Spanish speakers include the following:

- For th, as in thumb, thin, and path, the speaker will usually produce an s sound, resulting in sum, sin, pass or the t sound resulting in tum, tin, pat.
- For th, as in the, though, and this, the soft d sound is produced resulting in de, dough, dis.
- The sh, as in she and shoe, becomes the voiceless s - see, sue or the ch sound - chee, chew.
- The voiced s, as in zinc, rise, and zoo, is produced as a voiceless s sink, rice, sue.
- The b sound, as in bar and cab, becomes the p sound par, cap.
- The v sound, as in vote, veil, and vest, becomes the b sound boat, bail, best.
- The d sound, as in din and den, becomes the t sound tin, ten.
- The j sound, as in jar and judge, is said as the ch sound - char, chuch.
- The ch, as in watch, catch, and chew, is said as the sh sound wash, cash, shoe.
- The y sound, as in use and yellow, becomes the j sound - juice, jello.



- The n sound in a final position, as in thin and run, becomes the ng sound—thing, rung.
- The m sound in a final position, as in comb, dime, and some, becomes the n sound cone, dine, son.
- The g sound, as in dug, goat, and pig, becomes the k sound duck, coat, pick.
- For the w sound, as in way and woman, a g sound is usually added resulting in gway and gwoman. (In Spanish the w sound is preceded by the g sound agua, guante, guapo.)

#### **Vowel Sounds**

Vowel sound problems of Spanish-speaking children learning to control the English language include the following:

- When attempting pat, cat, and map, the speaker will usually say pot, cot, and mop, or after many attempts to approximate the sound, say pet, ket, and mep.
- In contrast to the above approximations, pot, cot, and hot may be said as pat, cat, and hat.
- Approximation of the vowel sound in done, sung, and cut often results in dawn, song, and caught.
- Leave, feel, and sheep may become live, fill, and ship, or just the opposite.
- Late, mate, and gate may become let, met, and get, or just the opposite.
- Pool and fool may become pull and full, or just the opposite.
- Coal, bowl, and hole may become call, ball, and hall.

#### Consonant Clusters

In addition to the problems of understanding and producing the significant consonant and vowel sounds of English just indicated, the Spanish-speaking learner is also faced with the problem of consonant clusters. Many English clusters do not exist in Spanish, or, if they do exist, do not occur in the same positions. For example, the kt cluster appears in Spanish in such words as acto, tacto, and octavo, but does not appear in final position

in Spanish words. Hence, the Spanish-speakin person has difficulty in producing the kt combination in such words as act, walked, talked and liked. The sp cluster appears in the Spanish in such words as espanol, espeso, an esposa. Since it is always preceded by the sound in Spanish, the Spanish speaker we tend to hear and say the e sound as preceding the initial sp in English. Hence, he will sespeak for speak, estudy for study, etc.

The sound clusters underlined in the following words illustrate the basic consonant clusters that do not appear in initial position Spanish words: <u>store</u>, <u>speak</u>, <u>small</u>, <u>snow</u>, <u>sideep</u>, <u>street</u>, <u>screw</u>, <u>spring</u>, <u>square</u>.

The words few, cure, mule, beautiful, a pure, in which the y sound is clustered w the initial sound, illustrate basic clusters English sounds that do not occur in init positions in Spanish words.

The sound clusters underlined in the folloing words illustrate the basic consonant clusters that do not appear in final position Spanish words: land, hunt, fast, fence, obox(ks), world, sink, act, change, melt, de help, milk, health, first, ask, bench, left, fitenth, hands, fifth, eighth, clubs, bags, farooms, lives, builds, saves, burns, warms, cacabs, laughs, boots, breathes, tifts, walks, livraised, pushed, pulled, touched, watch dared, cashed, helped.

The teacher must expect Spanish-speak pupils to require special help with consona and consonant clusters like those listed he

#### **Rhythm**

Rhythm in language is a matter of str and speed. In English, stress is rather re larly spaced in terms of time interval betwee accented syllables. For example, in the folloing sentence each of the three sections to about the same time to say: the cow — lives the farm — next to my uncle's house. That the cow (2 syllables) takes about as long



ion, as in thin and — thing, rung. sition, as in comb, ne n sound — cone,

. and *pig*, becomes *ick*.

y and woman, a galting in gway and sound is preceded ate, guapo.)

Spanish-speaking the English lan-

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pproximations, pot, s pat, cat, and hat. el sound in done, in dawn, song, and

y become live, fill,

ccome let, met, and

oull and full, or just

become call, ball,

ms of understandnificant consonant ish just indicated, r is also faced with t clusters. Many t in Spanish, or, if in the same posicluster appears in acto, tacto, and ar in final position in Spanish words. Hence, the Spanish-speaking person has difficulty in producing the kt combination in such words as act, walked, talked, and liked. The sp cluster appears in the Spanish in such words as espanol, espeso, and esposa. Since it is always preceded by the e sound in Spanish, the Spanish speaker will tend to hear and say the e sound as preceding the initial sp in English. Hence, he will say espeak for speak, estudy for study, etc.

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The words few, cure, mule, beautiful, and pure, in which the y sound is clustered with the initial sound, illustrate basic clusters of English sounds that do not occur in initial positions in Spanish words.

The sound clusters underlined in the following words illustrate the basic consonant clusters that do not appear in final position in Spanish words: land, hunt, fast, fence, old, box(ks), world, sink, act, change, melt, desk, help, milk, health, first, ask, bench, left, film, tenth, hands, fifth, eighth, clubs, bags, falls, rooms, lives, builds, saves, burns, warms, caps, cabs, laughs, boots, breathes, tifts, walks, lived, raised, pushed, pulled, touched, watched, danced, cashed, helped.

The teacher must expect Spanish-speaking pupils to require special help with consonants and consonant clusters like those listed here.

#### Rhythm

Rhythm in language is a matter of stress and speed. In English, stress is rather regularly spaced in terms of time interval between accented syllables. For example, in the following sentence each of the three sections takes about the same time to say: the cow—lives on the farm—next to my uncle's house. That is, the cow (2 syllables) takes about as long to

say as lives on the farm (4 syllables) and next to my uncle's house (6 syllables). In order to maintain this regular rhythm, English speakers accelerate their production of unaccented syllables between stressed syllables.

The Spanish speaker cannot, when first encountering English, reproduce a steady language rhythm or understand it because of the tendency in Spanish to produce all syllables at about the same rate of speed. In addition, there are some features of stress in Spanish which tend to carry over into English and to contribute to what some may consider a characteristic Spanish accent. For example, the Spanish speaker tends to stress the following language elements which the English speaker never stresses in everyday matter-of-fact speech:

A CONTRACTOR OF THE PROPERTY O

- The articles a, an, the
- The possessive adjectives my, your, his, her, its, our, their
- The prepositions in, on, off, under, to
- The pronouns I, me, we, us, he, him, you, they, them, she, her, it
- Any form of the verb be and the auxiliary verbs
- The conjunctions and, or, as, that, although

#### Intonation

The rise and fall of the voice make up the intonation or melody patterns of a language. The intonation patterns of English differ from those of Spanish. As in the case of the sounds and the rhythm, the Spanish-speaking person will tend to carry over into English the intonation patterns of his original language. For example, in English the polite request pattern uses a falling intonation: *Please open the door*. In Spanish, however, the polite request uses a rising intonation.

Features of intonation are complicated and do not lend themselves to simple generalizations. For a more complete discussion, the reader is referred to *The Intonation of American English* by Kenneth L. Pike.





### Similar Patterns in Word Order and Gramm

Migrant teachers should familia similar in Spanish and English. opportunity that arises to help chaddition, teachers should create meaningful practice.

#### Similar Patterns

Nouns can be used as the subject of statements.

I can be used as the subject of a statement.

Possessive adjectives can occupy prenoun positions. In Spanish such words agree in number, and in most cases in gender, with the noun modified.

Articles can occupy pre-noun positions. In Spanish they change in form to agree with the noun.

Adjectives occur frequently after a form of the verb be. In Spanish, the adjective agrees in number and gender with the noun it modifies.

Demonstrative pronouns appear frequently before a form of the verb be. The forms of demonstrative pronouns are more varied in Spanish than in English.

Demonstrative pronouns occur regularly in pre-noun positions. In Spanish they agree in number and gender with the noun modified.

Direct objects can occupy post-verb positions.

Indirect objects can be used with the to form. Spanish lacks the alternative English form in which the first example could be stated: The boy gave the girl the book.

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I play.

a book a house the boo the bo

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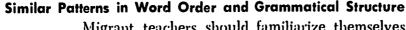
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Migrant teachers should familiarize themselves with patterns that are similar in Spanish and English. Advantage should be taken of every opportunity that arises to help children use these patterns correctly. In addition, teachers should create situations that provide occasion for meaningful practice.

#### Similar Patterns

Nouns can be used as the subject of statements.

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#### English

The book is here.
The pen is here.

I play. I sing.

My father is tall.
Our house is big.
Our houses are big.

a book a house the boy the boys

The doll is big.
The dolls are big.
The house is high.
The houses are high.

This is my mother. These are big.

Those are small.

this book that book these books those books

I see the book.
I wrote a letter.

The boy gave the book to the girl.
Rosa sent a letter to Mary.

#### Spanish

El libro está aquí. La pluma está aquí.

Yo juego. Yo canto.

Mi papá es alto. Nuestra casa es grande. Nuestras casas son grandes.

un libro una casa el muchacho los muchachos

La muñeca es grande. Las muñecas son grandes. La casa es alta. Las casas son altas.

Esta es mi mamá. Estos son grandes. Estas son grandes. Esos son pequeños. Esas son pequeñas. Aquellos son pequeños. Aquellas son pequeñas.

este libro ese libro estos libros esos libros

Mary.

Yo veo el libro. Yo escribí una carta.

El muchacho dió el libr**o** a la niña. Rosa mandó una carta a

#### Dissimilar Patterns in Word Order and Grammatical Structure

When a Spanish-speaking child says "The boy not drink his milk," or "The tomato is more big," or "The head hurts me," he is using patterns in word order and grammatical structure that exist in Spanish but not in English. Selected dissimilar patterns migrant teachers should be aware of are illustrated below.

#### Dissimilar Patterns

In English the pronoun is expressed as the subject of the statement and question pattern. In Spanish the pronoun subject (except for most instances with l) is not usually expressed. Instead, verbal inflection is used to indicate person and number.

In English not is used after the verb or within the verb phrase to express negation. In Spanish no is used in pre-verb positions.

In English the uninflected adjective form is in front of the noun. In Spanish the adjective usually follows the noun modified and agrees in number and gender.

In English the suffixes -er and -est can often be added to adjectives to form the comparative and superlative, respectively. In Spanish, the word más (more) and the words el mús, la más, los más, las más (the most) are used before the adjective.

In English the sounded suffix -s is customarily used to indicate present tense for third person singular, variously pronounced as s (walks), z (pays), and es (catches). In Spanish, there is a tendency to aspirate the final -s sound or drop it in pronunciation.

#### English

It is round. She can sing. Is he a policeman?

Mary is not here.

The horse does not eat meat.

the big dog the big dogs

The pumpkin is bigger. My father is the tallest in the family.

The boy eats candy. My sister goes to school. My brother watches television.

## Spanish

Es redondo. (Is round.) Puede contar. (Can sing.) ¿Es policía? (Is policeman?)

María no esta aqui. (Maria not is here or Maria no is here.) El caballo no come carne. (The horse not eat meat or the horse no eat meat.)

el perro grande (the dog big) los perros grandes (the dogs big or the dogs bigs)

La calabaza es más grande. (The pumpkin is more big.) Mi papá es el más alto de la

familia.

(My father is the most tall of the family or the more tall.

El muchacho come dulces. (The boy eat candy.) Mi hermana va a la escuela. (My sister go to the school.) Mi hermano ve la televisión (My brother watch the television.)



#### ord Order and Grammatical Structure

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#### Dissimilar Patterns in Word Order and G

Dissimilar Patterns

In English the sounded suffix -s is also used to form regular plurals. The sounds and the dissimilarities for Spanish speakers are the same as for the verbs above.

In English the suffix -ed is used to form the past tense of regular verbs, variously pronounced as t (walked), d (called), and ed (needed). In Spanish, past tense is expressed by adding inflected endings to regular verbs. The Spanish inflections, which are unrelated to the English suffix -ed, are -é (hablé), -ó (habló), -í (escribí). In addition, the Spanish language does not have many of the consonant clusters that appear when combined with the -ed suffix as in -kt (walked), -ld (called), -ft (laughed).

In English the auxiliary will plus the simple, uninflected form of the verb is used to express future tense. Spanish has no auxiliary equivalent to will. Rather, inflections are added to the infinitive form of the verb to express the future, among which are -e (habloaré), -a (hablará), -an (hablarán), -emos (hablaremos).

In English am, is, and are, plus going to plus the uninflected basic form of the verb are used to express future tense. Spanish uses the notion of go plus the notion of to (voya, vas a, va a) plus the infinitive form of the verb for future. However, the forms of the corresponding expressions are quite different.

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## Dissimilar Patterns in Word Order and Grammatical Structure (continued)

#### Dissimilar Patterns

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#### English

The books are here.

The pencils are there.

The houses are red.

The clown laughed.

The children played ball.

The baby wanted milk.

Spanish

Los libros están aquí. (The book are here.) Los lápices están allá. (The pencil are there.) Las casas son coloradas. (The house are red.)

El payaso se rió.
(The clown laugh.)
Los ninos jugaron bola.
(The children play ball.)
El bebe quiso leche.
(The baby want milk.)

The girl will dance.

The boy will speak.

La muchacha bailará. (The girl dance.) El muchacho hablará. (The boy speak.)

I am going to sing.

She is going to dance.

Yo voy a cantar. (I go to sing.) Ella va a bailar. (She go to dance.)





#### Dissimilar Patterns in Word Order and Grammatical Structure (continued)

#### Dissimilar Patterns

In English the negative command pattern requires the use of the forms do not, don't followed by the uninflected form of the verb. Spanish uses no before different forms of the verb to express the command pattern.

In English am, is and are plus the ing form of the verb are used to express the present progressive. Spanish has both the present progressive tense and the customary present tense, but in many instances they are interchangeable depending on the situation.

In English the article a is used in front of nouns indicating professions, occupations, or status. The Spanish pattern does not require the indefinite article in the pre-noun position.

In English the possessive adjective is used to designate parts of the body and articles of clothing. Spanish does not.

When using titles in English, the definite article is omitted. In Spanish el, la, or al precedes the title.

The prepositions in, on, and at are used in English in special situations that cause difficulty for the Spanish speaker. In and on are often interchanged because Spanish speakers may use the one form on in both situations.

English uses a form of the verb be in many expressions. Spanish uses a form of the verb have for expressing the corresponding idea.

English

Do not push.

Do not run.

I am painting now.

The man is a carpenter.

The woman is a nurse.

The girl is a pupil.

My head hurts.

His hair is black.

Mrs. Holmes is here.

I see Dr. Fox.

The ball is in the box.

I live on Madison Street.

I live at 139 Madison Street.

I'm thirsty.

He's eight.

Spanish

No corras.
No corra.
No corran.
(Not run or no ru

No empujes.
No empuje.
(Not push or no

Yo pinto ahora.
(I paint now.)
Yo estoy pintand.
(I am painting now.)
I painting now.

El hombre es car (The man is carr La mujer es enf (The woman is n La muchacha es (The girl is pupil

Me duele la cabe
(The head hurts
the head hurt
El pelo de él es s
(The hair of him

La señora Holmo (The Mrs. Holmo Yo veo al doctor (I see the Dr. Fo

La bola está en la (The ball is in the Yo vivo en la ca (I live in the Stre Yo vivo en el 13 Madison.
(I live in the 139

Madison.)
Yo tengo sed.
(I have thirst.)
El tiene ocho añ
(He has eight ye

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#### Order and Grammatical Structure (continued)

English

Spanish

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No corras.

No corra. No corran.

Do not push.

(Not run or no run.)

No empujes. No empuje.

(Not push or no push.)

I am painting now.

Yo pinto ahora.

(I paint now.)

Yo estoy pintando ahora. (I am painting now or I painting now.)

The man is a carpenter.

El hombre es carpintero. (The man is carpenter.) La mujer es enfermera.

The woman is a nurse.

(The woman is nurse.) La muchacha es estudiante. (The girl is pupil.)

The girl is a pupil.

Me duele la cabeza. (The head hurts me or the head hurt me.) El pelo de él es negro.

His hair is black.

My head hurts.

(The hair of him is black.) La señora Holmes está aquí.

(The Mrs. Holmes is here.)
Yo veo al doctor Fox.

Mrs. Holmes is here. I see Dr. Fox.

(I see the Dr. Fox.)

The ball is in the box.

La bola está en la caja. (The ball is in the box.) Yo vivo en la calle Madison. (I live in the Street Madison.) Yo vivo en el 139 de la calle

I live on Madison Street. I live at 139 Madison Street.

> Madison. (I live in the 139 of the Street

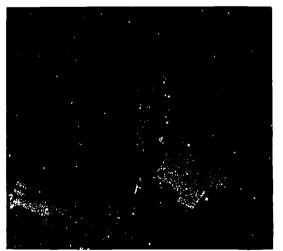
Madison.)

I'm thirsty. He's eight.

Yo tengo sed. (I have thirst.) El tiene ocho años. (He has eight years.)













#### Dissimilar Patterns in Word Order and Gr

Dissimilar Patterns

English uses inversion of the subject and forms of the verb be and auxiliary verbs to ask questions. Although Spanish also uses the device of inverting the subject and the verb for questions, Spanish-speaking children often use the rising intonation without inversion as the means for indicating a question.

In English the structural words do, does, and did are used to ask questions. Spanish inverts the subject and the verb or simply uses the rising intonation to indicate this type of question. In Spanish, the rising intonation is the clue to the question, whereas in English the rising intonation is optional. That is, intonation can be either up or down. The clue to the question in English is the position of the words do, does, and did.

In English the introductory words when, where, why, and what followed by the auxiliaries do, does, did are used in questions with the subject and verb in regular order. Spanish uses the question word followed by the verb and the subject in inverted order. No auxiliary comparable to do, does, or did is used.

Do the

Is the

Can I

Does to

Where live! When





### Dissimilar Patterns in Word Order and Grammatical Structure (continued)

#### Dissimilar Patterns

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#### English

Is the boy here?

Can Mary go?

#### Spanish

¿El muchacho está aquí? (The boy is here?) ¿Mary puede ir? (Mary can go?)

Do the girls study?

Does this boy paint?

Did the girls leave?

¿Las muchachas estudian? (The girls study?) ¿Este muchacho pinta? (This boy paints?) ¿Las muchachas salieron? (The girls left?)

Where does your teacher live? When did the game begin? ¿Dónde vive su maestro? (Where lives your teacher?) ¿Cuándo empezó el juego? (When began the game?)







#### Reference and Research Suggestions

Persons desiring to pursue in greater depth the topics discussed in this article are referred to the following books:

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### Facts in Faces

Aprender el inglés es una tarea dificul para el niño cuyo idioma natal es el espa Las fotografías en las páginas 12-17 si de evidencia. Cada una describe a un migrante diciendo, o estudiando como d palabras en inglés.

Learning English is not easy for a converse primary language is Spanish. fact can often be seen in their faces evidence, look at the photographs on p 12-17. Each depicts a migrant child sa or pondering how to say words in English

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Migrant teachers must understand problems faced by children learning lish as a second language. They must understand that the solution to these plems includes special approaches to teaching of English. Spanish-speaking grant children can be helped best if teac concentrate on oral language instruction for later.









#### Suggestions

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and Learning English Ann Arbor, Michigan: Press, 1953.

Teaching, A Scientific eGraw Hill, Inc., 1964.

c.). Reference List of s a Second Language. s. Dictionaries, Tests. enter for Applied Lin-

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Learning English is not easy for a child whose primary language is Spanish. This fact can often be seen in their faces. As evidence, look at the photographs on pages 12-17. Each depicts a migrant child saying or pondering how to say words in English.

Can you read the first paragraph orally? Do you understand it? Unless you know Spanish, you probably looked perplexed and skipped to the second paragraph. Then, with a glance upward, decided it was an English translation.

Migrant teachers must understand the problems faced by children learning English as a second language. They must also understand that the solution to these problems includes special approaches to the teaching of English. Spanish-speaking migrant children can be helped best if teachers concentrate on oral language instruction first and leave "textbook" language instruction for later.













BENITO RODRÍGUEZ Language Consultant Public Schools El Paso, Texas

## I Am Who I

(The Future of the Mexican American-

Benito Rodrígue

Some persons argue that a study of history, plus the prevailing situation of a people, can give a fairly accurate picture of what is in store for that particular group. My sincere wish is that such a method will prove unsuccessful when applied to American citizens of Mexican ancestry. I prefer to view the future of the Mexican American with an optimistic eye, with confidence that the democratic principles of our country will help him achieve the economic and social equality that is guaranteed to all Americans.

#### The Man: A Brief Background

The Mexican American has inherited, much to his discomfort, many of the negative traits of his Spanish and Aztec forefathers - the hidalgo1 pride of the Spaniard (el hanbre lo tumba pero el orgullo lo levanta)2 and the mercurial temperament of the Indian. The Spanish priests taught him humility and sub-

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<sup>&</sup>lt;sup>2</sup>He drops from hunger, but his pride picks him up.

## I Am Who I Am

(The Future of the Mexican American—With An Optimistic Eye)

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Some persons argue that a study of history, plus the prevailing situation of a people, can give a fairly accurate picture of what is in store for that particular group. My sincere wish is that such a method will prove uncuccessful when applied to American citizens of Mexican ancestry. I prefer to view the future of the Mexican American with an optimistic eye, with confidence that the democratic principles of our country will help him achieve the economic and social equality that is guaranteed to all Americans.

#### The Man: A Brief Background

The Mexican American has inherited, much to his discomfort, many of the negative traits of his Spanish and Aztec forefathers—the hidalgo¹ pride of the Spaniard (el hambre lo tumba pero el orgullo lo levanta)² and the mercurial temperament of the Indian. The Spanish priests taught him humility and sub-

missiveness. They convinced him of the need to believe in the will of God. This was a process of cultural emasculation that was born not from the love for the Indian, but from expediency and a fear of encouraging any feelings of liberty and equality which might have led to a wholesale massacre of the Spaniards.

Countless "leaders" through the ages have taken advantage of the Mexican. Time and again los de abajo<sup>3</sup> have tried to take a step upward only to find that the rungs in the socio-economic ladder had been sawed off by the conquistador, the viceroy, the criollo, the priest, the cacique, the Juarista, the Porfirista, and the PRIista.<sup>4</sup> The old tale, "the rich get richer and the poor . . . they are well, thank you," has been perpetuated.

The underdogs, the oppressed the conqueror, the governor, the Spaniards born in Mexico, the priest, the political boss, the followers of Benito Juaréz, the supporters of Porfirio Diaz, and the present government leaders

<sup>&#</sup>x27;noble
'He drops from hunger, but his pride picks him up.







The history of the common Mexican is and has been one of betrayal. By tradition he is the victim. Again and again he has been invited to participate in a game without being given the benefit of knowing the rules—a case of "We will let you know when you lose."

In an effort to better his lot he crossed over to the United States—lured by the legend of equality, success stories, and the complete gamut of vaunted democratic values. Here he has been encouraged and sometimes forced to learn the textbook version of the "American Way of Life." Instead, he has learned that credibility gaps are not the exclusive property of the Mexican power class. His sorrow has been compounded if he has lived in certain states of the Southwest, where by historical tradition he has been considered a second class citizen and discriminated against most often by those who are themselves considered "trash" by many of their neighbors.

### The Child: His Divided Loyalties

A Mexican American child who belongs the disadvantaged class usually suffers to pain of divided loyalties. In school he expected to function in English. At home when he speaks English, he is ridiculed in "showing off."

He soon learns that in the land of the frethe color of your skin and your accent of help brand you as "different." Though school teaches him that anyone can become preside of the United States no matter how poor might have been, he discovers that this from the been true for Jews, Negroes, and unlately Catholics.

The Mexican American child—like to Negro child—soon discovers that discrimination is considered a dirty word, especially those who practice it, but will not admit When he becomes personally aware of certarealities, he sadly concludes that there assome who, by reason of skin color or surnare are considered more equal than others.







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The Mexican American child—like the Negro child—soon discovers that discrimination is considered a dirty word, especially by those who practice it, but will not admit it. When he becomes personally aware of certain realities, he sadly concludes that there are some who, by reason of skin color or surname, are considered more equal than others.





#### The Educator: Suggested Lines of Perspective

Regardless of how much an educator loves his country, he must not allow that love to blind him to her faults, and they are many. A country that has love for only a chosen few is like a parent who favors one son over another, thereby planting the seed of discord which eventually destroys that family through jealousy and hate.

Admittedly this is a sad commentary on the state of the Mexican American, our second largest minority. Nevertheless it is true and each educator must try to extend his lines of perspective in the sincere belief that he can contribute to an enlightened future for Mexican American children. He can achieve this goal through an awareness of the great potential of a pluralistic society in contributing to the growth and greatness of our nation.

## The School: A Carrier for Cultural Pluralism

All of us should consider the value inherent in the contributions of the different racial and ethnic groups that make up this United States. As educators we must become aware that it is the function of the school to find ways and means to contribute to and utilize the potential richness of our varied cultures. The school—as the carrier and communicator of culture—must search for and promote whatever methods are found feasible to stimulate a sense of belonging, of dignity and self-respect, in every child in our country. Also, the school can and must help all children to understand and appreciate the beauty of cultural diversity.

If we assume that the greatness of our country is known throughout the world, then we must also be ready to assume that this greatness is largely due to cultural pluralism. We are also aware that this greatness is threatened from both within and without. Now is the time for our schools to incorporate cultural pluralism into the educational structure, and in so doing, enhance and support the strength of our country.

The Mexican American child presents our schools with a worthy challenge: Can we educate him to become a responsible citizen, without in any way belittling his cultural heritage? Indeed, this is the kind of challenge that only our educational system, which is based on the purest democratic principles, can dare to undertake and be sure of success.

The progress of our country has been and is characterized by a series of conflicts based on what appeared at the time to be inherent differences. The feminist movement resulted in the right to vote for women. The labor movement resulted in better wages and humane working conditions for the working man. Who can deny that our country is now stronger and greater as a result of these struggles for social and economic equality? As educators



and communicators of culture, it is of to make the needs of the culturally child known and met by our school In the process of educating the American child we can turn a poten flict into an asset that will result in for all concerned.

The United States has become leader, not by chance, but by a more effort of national will power and has This role has placed an enormous and responsibility on every one of us. It the enviable opportunity to contribute greatness of our country, if we recognitize the cultural and linguistic dividual understanding and respect rest of the world.

We are a proud country, and e proud of our belief in the principle educational opportunity for all. In or we can help perpetuate this princiquality of our educational process ler the value inherent ne different racial and up this United States. become aware that it hool to find ways and ad utilize the potential ultures. The school—nunicator of culture—inote whatever methostimulate a sense of I self-respect, in every so, the school can and I cultural diversity.

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The United States has become a world leader, not by chance, but by a monumental effort of national will power and hard work. This role has placed an enormous amount of responsibility on every one of us. We have the enviable opportunity to contribute to the greatness of our country, if we recognize and utilize the cultural and linguistic diversity of our fellow citizens as a means to achieve mutual understanding and respect with the rest of the world.

We are a proud country, and especially proud of our belief in the principle of equal educational opportunity for all. In order that we can help perpetuate this principle, the quality of our educational processes must reflect and stimulate the feeling of ethnic pride among the diverse cultural elements in our society. Our very existence as a nation may well depend on our prompt recognition of this principle. We have welcomed varied human resources from throughout the world, but the fiber of our nationhood can only be strengthened if we protect those same human resources.

The school — when recognizing the merits of cultural diversity as the basis for the formation of a positive and self-respecting student — must provide him with a framework of experiences that will help him achieve a positive self-image, an image that will find expression in positive actions for his benefit and that of society. If we multiply this effect and project it, we can foresee a contribution to a more harmonious societal interaction based on mutual understanding. We can foresee the future of the Mexican American with an optimistic eye — if we help him in such a way that he can proudly say, "I am who I am."



# TOLKARIO OF MILATIO HINTAHILA

Books, including ones related to cultural heritage

Music and dances, as the Mexican Hat Dance

# **Tools and Techniques**



Field trips to local points of interest the case above, a cannery



Kits, including ones on career opportunities





cultural heritage

# Tools and Techniques



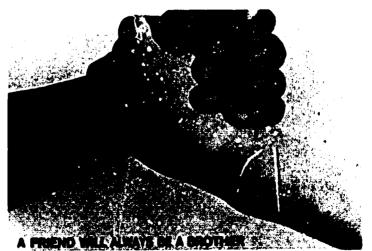
Field trips to local points of interest — in the case above, a cannery



Favorite foods, perhaps tacos or enchiladas



Kits, including ones on career opportunities



Posters, such as this one focusing on cultural pluralism



J. DOUGLAS DICKINSON
Director
Glen Helen Outdoor Education Center
Yellow Springs, Ohio

# I See, I Touck

(Outdoor Education Res

Migrant children, inner-city children, suburban children, farm children, all children can benefit from outdoor education experiences. And, long field trips and expensive materials are not necessary.

J. Douglas Dickinson, Director of the Glen Helen Outdoor Education Center, firmly believes that many opportunities for developing ecological concepts exist on any school site. He further believes that any classroom teacher can conduct outdoor education activities.

The suggestions in this article are ones that Mr. Dickinson and the Glen Helen teacher-naturalists discussed with conference participants.

#### School Site Resources

Some school sites — because of larger school grounds, adjoining parks, or open areas — have excellent outdoor teaching-learning possibilities. Every school has common resources and outdoor education potential. Resources often include:

- Play areas of grass, bare soil, or blacktop
- Lawn areas containing crab grass, wild onion, and other plant life
- Trees and shrubs including deciduous varieties which lose their leaves in winter and coniferous or evergreen varieties
- Tree stumps cut by hand or power tools
- Sidewalks, telephone poles, wooden posts, drainage areas, and culverts
- Parking areas covered with crushed rock or blacktop
- Buildings with brick or stucco exteriors
- · Soil, silt, gravel, rocks, and cinders
- · Relatively flat or gently sloping land
- Evidence of erosion

# I See, I Touch, and I Try

(Outdoor Education Resources and Activities)

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#### Easily Made or Inexpensive Equipment

Much of the equipment needed for outdoor education experiences can be made from readily available scrap or inexpensive materials. Many other items can be borrowed or purchased quite inexpensively. In addition



Center

to usual school supplies, consideration might be given to the following:

Clipboard. Use a piece of %" masonite, 9%" x 11%" with a rubber band.

Data Sheets. Develop and duplicate various worksheets for students to use while outdoors.



Specimen Bags. Use clear plastic bags of various sizes.

10X Hand Lens. Obtain locally, or for about \$1.00, order #61494 from Magnifier-Forestry Suppliers, Inc., P.O. Box 8397, Jackson, Mississippi 39202.

Magnifying Glass or Pocket Magnifier. Obtain locally. One of these may be better than a hand lens for use by primary children.

Microscope or Bioscope. Borrow within the school or buy from a school supply house.

"I found Circle." Form a circle with a 24" to 36" piece of string or with a wire hanger.





Compass. Use the liquid-filled variety.

Weatherproofing. Obtain a clear plastic spray such as Krylon. The school librarian may have some that you can use.

Protective Paper. Get eighteen-inch rolls of clear contact paper.

Aquatic Net. Use a piece of metal door screen about 7" square.

Aquatic Scope. Tape 3 or 4 soda cans together with masking or electrical tape. Attach a piece of clear plastic to one end, using rubber bands to hold it in place.

Soi!



Portable Aquarium. Use a clear plastic bag.

Insect Net. Obtain quality netting, such as nylon.

Attach a hoop to a handle with strong tape or hose clamps. Fasten netting to the hoop.

Plaster Cast Track Kit. Use a plastic bag, a can of plaster of paris, and water in shampoo tubes. Mix two parts plaster of paris to one part water in the bag.

Soil Diggers. Obtain a garden trowel and a small scratcher.

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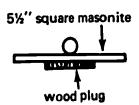
Soil Auger. Use a wood bit (hand-drill variety).

A handle can be devised, if desired.

Soil Test Kit. Contact your local soil conservation agent to see if he has complimentary kits or get ph papers from the high school chemistry teacher. Get instructions for use, also.

Wren Bird House. Materials needed are a coconut, a 5½" square masonite top, a wood plug, one ½" screw eye, and two 1" screws.





1" hole

Bird Feeders. Use your imagination. One possibility is a net bag filled with 'aeld corn or suet. Other simple feeders can be made from pine cones, coconut halves, holes drilled into a small log, or similar containers. For food try a mixture of seeds, vegetable shortening, peanut butter, and bacon fat.

Weather Instrument Shelter. For a moveable box for holding weather instruments indoors or out, use three 9" x 15" shutterettes plus a solid pine back, bottom, and top. Mount on a post.

Wind Measurer. Check a weather book to find directions for making a simple anemometer.

Bird Feather Vane. Put a needle through a six-inch feather. Use a drinking straw for a holder.

Splash Board. Use a white board or white piece of cardboard. Place at ground level.

Hygrometer. Attach a one-inch shoelace wick to a conventional thermometer.



Tree Diameter Tupe. Use two layers of %" or 1" masking tape (or other suitable tape) 8' long. Put sticky side to sticky side. Use a tack to maintain a starting point. Mark one side in inches and feet to measure circumference. Mark the other side in 3 1/7" units to measure diameter.

Biltmore Stick. Write to the Forest Service, U. S. Department of Agriculture, Washington, D. C. for this timber-cruising device for estimating tree diameter and board footage. Ask for free Biltmore Sheets. Glue to a lath 14" x 2" x 28".

Mapping Table. Get a plywood top, 1/2" x 2' x 2'.

Attach aluminum legs and fittings with brass screws.

Inclinometer. Mount a small protractor to a 3"x 15" piece of plywood. Attach a wire pendulum. Stor Chart. Buy one with a rotating disc.

Stor Pointer. Use a 6-cell flashlight or a portable automobile spotlight.

Star Scope. Make with three cardboard tubes. Use two tubes that are 10"-12" in length and one tube that is shorter. Bind together with tape.

#### **Outdoor Education Activities**

To benefit from outdoor education activities a student must have opportunities to see touch, and try. While he is exploring every child should have something in his hand or pocket—pencil, paper, specimen bag, handlens, digger, or ruler.

Teacher preparation and follow-up are musts. Otherwise, the full impact and value of outdoor experiences will not be realized Keep in mind also that experiences should be correlated with classroom activities. Suggestions include helping students to do the following:

Trees and Shrubs
Sketch tree shapes or silhouettes.

Estimate tree heights in relation to pupils. Study bark patterns, textures, and colors.





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#### Trees and Shrubs

Sketch tree shapes or si!houettes. Estimate tree heights in relation to pupils. Study bark patterns, textures, and colors.



Find root systems exposed by erosion.

Compare deciduous and coniferous tree characteristics.



Examine fruits, seeds, buds, leaf scars, leaves, and roots.

Measure distance around (circumference) and distance through the center (diameter) with a tree diameter tape.

Compare trees and shrubs.

Test bark thickness.

Discuss ways that trees are useful to man.



Stumps and Posts

Determine the method used in cutting and possible reasons for cutting.

Rub growth rings with pencil or crayon on paper to get an impression or tracing.

Find clues that show what forces are acting on the stump.





Find evidence of decay and insect life.

Compare untreated wood with wood that has been painted or treated with other preservatives.

Figure out why posts have been put into the ground in certain locations.

## Grasses and Other Low Vegetation

Find effects of people, animals, sunlight, shade, wind, and water on plant growth.

Find unusual locations where plants are growing (cracks in sidewalks, sides of buildings, tree stumps).



Taste a wild onion, the tip of a red clover blossom, or a timothy stem.

Find effects of plants on erosion and erosion on plants.

Study small, measured plots of ground to strengthen observational skills.



To s an "I Found Circle" on a lawn and study the plants within the ring.

Rub plant pigments on sandpaper and examine.

Keep records of the heights of growing plants with strips of colored paper. Glue strips to a piece of cardboard to make a growth graph.

Study the roots of grass or other plants by carefully washing away the soil.

Compare how seeds travel from place to place.



Animal Life

Observe insects, birds, squirrels, and other animal







Study small, measured plots of ground to strengthen observational skills.

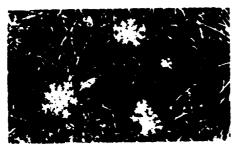


Toss an "I Found Circle" on a lawn and study the plants within the ring.

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l'ind animal homes under logs and rocks, in tree bark, in holes in trees, and in nests.

Find tracks in the mud, including human, and take plaster of paris casts of them.

Find other evidence of animal life — cocoons, droppings, borings, earthworm holes, beetle borings, etc.

Establish bird feeding stations near a window.





Keep records of when birds arrive.

Notice how carelessly dropped food is quickly eaten or carried away by various animals.

#### Soil and Water

Compare sizes of soil particles. Shake soil in a jar of water and let it settle.

Compare colors of soils in different places.

Smell soil to find out if it has an odor.

Compare color and moisture of soil from the surface to two feet deep. Use a soil auger.

Measure soil compaction in different places. Use a stick or pencil to see how much of a hole you can make.

Find out how fast water soaks into the ground in different places To do this a bottomless tin can be sunk into the ground.

Compare crosion at different places on the school ground. Note evidence of crosion — deltas, gullies, exposed roots.

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Examine soil with a hand lens or magnifying glass. Separate the parts of soil into piles of the same material – pebbles, roots, leaves, sand.

Listen to different soils when held to the ear and rubbed between the fingers.

Measure the temperature of the soil in different spots.

Squeeze samples of different kinds of soil together to see if they form a ball.

Collect muddy water from a puddle or drainage ditch. Allow the suspended soil to settle to the bottom. Compare the amounts of soil in different places.

Pour some water into a jar of soil. Notice the air bubbles that rise to the top.



Measure root exposure of the depth of gullies with strips of paper. Paste them to a piece of cardboard to record measurements of soil erosion in different places.

Compare plant growth in different kinds of soils.

## Rocks and Minerals

Make soil by rubbing two rocks together.

Scratch rock on sandpaper or unglazed porcelain tile for color streak.

Examine a rock with a hand lens to see the size and texture of the particles.

Test rocks for hardness by rubbing two rocks together to see which one makes a scratch in the other.

Observe if the surface of the rock or mineral reflects light or appears to have a luster.

Arrange rocks according to color, texture, hardness, luster, or other characteristic.

Find rocks that break differently by comparing edges.

Lind rocks that have been worn smooth by water or cracked by weather. Compare a freshly broken surface with a weathered one.

Compare man-made rock (bricks or blocks) with natural rock.

Compare the weights of the different kinds of rocks of the same size.

Find different kinds of fossils.





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Compare the weights of the different kinds of rocks of the same size.

Find different kinds of fossils.

Make impressions of fossils in clay.

Find where plants are growing on and slowly breaking down rocks.

Survey the different kinds of rocks on the school grounds.

Find rocks that show signs of rusting.

Discuss ways that rocks are useful to man.



Sidewalks, Blacktop Areas, and Driveways

Examine what surfaces are made from and how they are made.

Find plants growing in cracks.

Find wearing away by forces of weather and by people.

Find soil washed onto surfaces and determine where it came from.

Find where tree roots have pushed up surfaces. Study where sidewalks have been placed and



#### Weather

Compare cloud formations.

Determine wind speed by observing flag movement or using a wine measurer.

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Determine wind direction with a balloon or a bird feather vane.

Compare effects of objects such as buildings or vegetation on wind.

Explore differences in temperature in different places on the school ground (small climate areas).

Determine relative humidity of the air. Have pupils check a science book to learn how to use a hygrometer.

Study the effect of rain on soil erosion. Set up splash boards and water the soil with a watering can.

Trace rain that falls on the school building. Discuss where it goes - roof, gutter, drain culvert, etc.

Examine school buildings for weathering of bricks, wood, and paint.

Illustrate air pollution by holding a clean cloth in the path of smoke.

Observe where a puddle has dried up.

Observe where ice or snow is melting.



#### **Ponds and Streams**

Use an aquatic net to study pond and stream plants and animals. When you agitate rocks, organisms will flow into the net.

Find the average depth of the pond or stream.

Make a simple map of the pond or stream. Find the temperature of the water in different

places and at different levels.

Use a hand lens and microscope to discover microorganisms.

Find where the plant and animal life is a alterndant.

Find evidence of water pollution.

Examine the turbidity (muddiness or rother of the water.

Discover if shade changes the water environmentermine the acidity and alkalinity of the stand the soil along the shore or bank.

Mark off the watershed of a pond.

Figure the surface area and volume of a pon



#### Shadows

Estimate the length of shadows in relation objects casting them.

Mark the position of shadows on the ground chalk or sticks. Note the change in length position after a few minutes and a few he Discuss why shadows move.

Compare shadows cast by the flag pole, process, persons, buildings, etc.

Compare shapes of shadows with the obcasting the shadows.

Observe how shadows fall according to the tion of the sun.



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Estimate the length of shadows in relation to objects casting them.

Mark the position of shadows on the ground with chalk or sticks. Note the change in length and position after a few minutes and a few hours. Discuss why shadows move.

Compare shadows cast by the flag pole, posts, trees, persons, buildings, etc.

Compare shapes of shadows with the objects casting the shadows.

Observe how shadows fall according to the position of the sun.



Art Suggestions

Find "lines" in the environment such as circles (sun, moon, berries, woodpecker holes), zigzags (tree rings, edges of leaves, buildings, and trees on the horizon), wavy lines (path of a brook, ripples of water, soil), straight lines (tree trunks, veins in a leaf, pine needles, blades of grass) and other shapes.

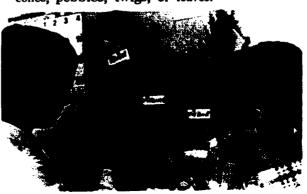
Illustrate movement with lines that show how different birds fly, how branches wave in the wind or how clouds move in the sky.

Use dots, light lines, dark lines, zig-zags, spirals, straight and wavy lines to suggest wind in grass and trees, a squirrel's or dog's bark, the sound of a stream.

Rub rocks, sticks, and leaves on sandpaper to create designs with color.

Draw and describe the texture of tree bark, stumps, blades of grass, feathers, sidewalks, etc. Construct collages from natural materials such as

cones, pebbles, twigs, or leaves.











Miscellaneous Activities

Encourage students to use a 10X hand lens or magnifying glass to open up a new world.

Write round-robin stories of observations. If possible, have a student do the recording.

Calculate the heights of trees, buildings, and flagpoles



Help beautify the school grounds by conerosion problems and planting trees, graflowers.

Collect litter from the school grounds and a it before the entire student body.

Plan, plant, and harvest a garden.

Make simple maps of the school grounds.











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Collect litter from the school grounds and display it before the entire student body.

Plan, plant, and harvest a garden.

Make simple maps of the school grounds.

Learn to determine direction with a compass. Conduct a seavenger hunt to locate, not necessarily collect, specified items.

Have a five-senses hike with students recording what they see, hear, feel, taste, and smell.

Make self-guided tour booklets of school grounds, possibly one for spring and one for fall.

